Emissions Inventory Help Sheet for Concrete Batch Plants

What do I need to report?

Use a separate **General Process Form** to report information on each source of emissions at your plant. Give each process a unique Process ID number. Include:

- all applicable sources from the list below (each on a separate form),
- vehicles moving on unpaved areas on-site (see Help Sheet for Vehicle Travel on Unpaved Roads),
- gasoline storage (in tanks with capacity of 250 gallons or more, see Help Sheet for Fuel Storage and Handling), and
- internal combustion engines (not emergency backup engines that operated a total of less than 100 hours, nor vehicle engines).
- ***NOTE:*** If your business has an issued or pending Title V permit, please see the "Instructions for Reporting 2004 Annual Air Pollution Emissions" for more information about on how to report processes that produce PM_{10}, and how to calculate emission fees.

See Instructions for Reporting 2004 Annual Air Pollution Emissions, particularly page 3 (assigning ID numbers), page 4 (grouping engines and exclusions) and pages 9–12 (the General Process Form, with examples for engines and unpaved travel). Keep existing Process ID numbers (line 1) for forms corresponding to previously reported processes. **For the processes listed below, be sure to provide information for General Process Form lines 6 through 8, 11 and the calculation for column 25.** Calculate column 25 as follows: Line 11 × Column 16. Use this table to calculate PM_{10} emissions based on **tons** of throughput.

General Process Form: Line 2	Line 5	Line 9	Line 10	Line 13	Column 16	Column 17	Column 18
Process Name/Description	**SCC Code**	**Process Material**	**Used/ Produced/ Existing?**	**Unit of Measure**	**PM_{10} Emission Factor (lbs)**	**Emission Factor Unit**	**Controlled? (Yes/No)**
Aggregate delivery to ground storage[1]	30501121	aggregate	used	ton	0.0033	ton	N
Sand delivery to ground storage[1]	30501122	sand	used	ton	0.00099	ton	N
Sand and aggregate storage piles[2]	30502507	acres used for storage	existing	acre	630	acre	N
Aggregate transfer to conveyor[1]	30501123	aggregate	used	ton	0.0033	ton	N
Sand transfer to conveyor[1]	30501124	sand	used	ton	0.00099	ton	N
Aggregate transfer into elev. storage bin[1]	30501104	aggregate	used	ton	0.0033	ton	N
Sand transfer into elevated storage bin[1]	30501105	sand	used	ton	0.00099	ton	N
Cement pneumatic transfer to elevated silo[1]	30501107	cement	used	ton	0.00034	ton	Y
Cement supplement (such as flyash) pneumatic transfer to elevated silo[1]	30501117	cement supplement	used	ton	0.0049	ton	Y
Weigh hopper loading[1]	30501108	sand+aggregate	used	ton	0.0024	ton	N
Mixer loading (central mix)[1]	30501109	cement+supplement	used	ton	0.0038	ton	Y
Truck loading (truck mix)[1]	30501110	cement+supplement	used	ton	0.051	ton	Y

These emission factors include existing moisture. No further capture or control efficiencies may be claimed for processes where "Controlled?" (column 18) is "Yes".

[1] Reference: U.S. EPA AP-42, "Compilation of Air Pollutant Emission Factors: Volume I: Stationary Point and Area Sources," 5th ed. Table 11.12-2 (10/01).

[2] The stockpile emission factor above is uncontrolled. You may account for dust control efforts on stockpiles and unpaved travel if you use water or other dust suppressants and if you are in full compliance with the record keeping requirements in Rule 310, Fugitive Dust Sources and/or Rule 316, Nonmetallic Mineral Mining and Processing. Show capture efficiency (in column 20) = 100%. Control efficiency of 70% is allowed for regular watering. The range of acceptable control efficiencies for chemical palliatives (dust suppressants) is 70–90%. When Column 18 is "N" and there are qualifying dust controls, calculate column 25 as follows: Line 11 × Column 16 × [1 – (control efficiency)].

The following table is provided if you wish to calculate PM_{10} emissions based on throughput in **cubic yards** instead of tons as provided in the previous table. The emission factors in this table assume the following composition of one yard of concrete:

Coarse Aggregate:	1865 lbs
Sand:	1428 lbs
Cement:	491 lbs
Cement Supplement:	73 lbs
Water:	20 gals

General Process Form: Line 2	Line 5	Line 9	Line 10	Line 13	Column 16	Column 17	Column 18
Process Name/Description	**SCC Code**	**Process Material**	**Used/ Produced/ Existing?**	**Unit of Measure**	**PM_{10} Emission Factor (lbs)**	**Emission Factor Unit**	**Controlled? (Yes/No)**
Aggregate delivery to ground storage[1]	30501121	aggregate	used	yd^3	0.0031	yd^3	Y
Sand delivery to ground storage[1]	30501122	sand	used	yd^3	0.0007	yd^3	Y
Sand and aggregate storage piles[2]	30502507	acres used for storage	existing	acre	630	acre	N
Aggregate transfer to conveyor[1]	30501123	aggregate	used	yd^3	0.0031	yd^3	Y
Sand transfer to conveyor[1]	30501124	sand	used	yd^3	0.0007	yd^3	Y
Aggregate transfer into elev. storage bin[1]	30501104	aggregate	used	yd^3	0.0031	yd^3	Y
Sand transfer into elevated storage bin[1]	30501105	sand	used	yd^3	0.0007	yd^3	Y
Cement pneumatic transfer to elevated silo[1]	30501107	cement	used	yd^3	0.0001	yd^3	Y
Cement supplement (such as flyash) pneumatic transfer to elevated silo[1]	30501117	cement supplement	used	yd^3	0.0002	yd^3	Y
Weigh hopper loading[1]	30501108	sand+aggregate	used	yd^3	0.0038	yd^3	Y
Mixer loading (central mix)[1]	30501109	cement+supplement	used	yd^3	0.0011	yd^3	Y
Truck loading (truck mix)[1]	30501110	cement+supplement	used	yd^3	0.014	yd^3	Y

These emission factors include existing moisture. No further capture or control efficiencies may be claimed for processes where "Controlled?" (column 18) is "Yes".

[1] Reference: U.S. EPA AP-42, "Compilation of Air Pollutant Emission Factors: Volume I: Stationary Point and Area Sources," 5th ed. Table 11.12-3,4 (10/01).

[2] The stockpile emission factor above is uncontrolled. You may account for dust control efforts on stockpiles and unpaved travel if you use water or other dust suppressants and if you are in full compliance with the record keeping requirements in Rule 310, Fugitive Dust Sources and/or Rule 316, Nonmetallic Mineral Mining and Processing. Show capture efficiency (in column 20) = 100%. Control efficiency of 70% is allowed for regular watering. The range of acceptable control efficiencies for chemical palliatives (dust suppressants) is 70–90%. When Column 18 is "N" and there are qualifying dust controls, calculate column 25 as follows: Line 11 × Column 16 × [1 – (control efficiency)].